

United States Department of Agriculture

Soil Conservation Service

Program Aid Number 1428

'Seco' barley



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'Seco' barley (*Hordeum vulgare* L.) was released in 1987 by the University of Arizona Agricultural Experiment Station in cooperation with the Soil Conservation Service (SCS) and the Agricultural Research Service (ARS) of the U.S. Department of Agriculture (USDA).

Seco barley is recommended for erosion control plantings, winter cover crops, green manure crops, and to provide feed for wildlife on disturbed land or retired cropland, especially where water is limited. It was selected for release because of its superior overall vigor, root spread, and yield on dryland plantings in Arizona and California.

Description

Seco is a robust six-rowed, rough-awned spring barley. The plants are erect, 30 to 48 inches tall. The leaves are flat and narrow with closed collars. The spike is lax and nonwaxy. The mature lemmas are semiwrinkled and have purple veins. Kernels are predominantly white, occasionally blue. The root crown is 1 to 2 inches below the soil surface. Root development extends beyond 6 feet under favorable conditions. There are about 10,000 to 11,000 seeds per pound.

Adaptation

Seco barley is adapted as a winter barley to southern portions of Arizona, New Mexico, California, and western Texas at elevations from sea level to 3,000 feet. Seco has been used as a spring barley in Oregon, Washington, Idaho, and Montana. Seco is well adapted to a wide range of soil textures from sandy loams to clay loams. Seco's salt tolerance appears to be equivalent to that of other highly salt-tolerant barley strains. Seed yield under dryland conditions with no preplant irrigation, depending on residual soil moisture and seasonal rainfall, has exceeded 2,000 lbs/ac. At Tucson, Arizona, seed yields have exceeded 2,500 lbs/ac with one 4-inch preplant irrigation.



Typical barley plant.

Source: Hitchcock. 1971. *Manual of Grasses of the United States*. U.S. Government Printing Office, Washington, DC.

Establishment

Recommended planting dates are November 25 to December 30 when used as a winter barley below 3,000 feet. When used as a dryland spring barley above 3,000 feet, planting dates should be adjusted to local rainfall patterns. Planting rates for dryland planting are 20 to 30 pounds pure live seed per acre. Seed should be planted at a depth of 1.5 inches. In southern Arizona, seed maturity of fall-seeded Seco barley ranges from April 15 to April 30.

As a green manure crop, Seco should be incorporated into the soil when it is in the soft dough stage. As feed for wildlife, Seco should be allowed to mature, then harrowed or lightly disked to aid in seed dispersal and replanting for an additional crop.

To maximize Seco's seed production, a 4-inch preplant irrigation is required; and depending on rainfall, an additional 4-inch irrigation may be necessary at boot stage.



Availability

January 1989

Breeder seed is maintained by USDA, ARS, Tucson, Arizona. Foundation seed is maintained by the SCS Plant Materials Center, 3241 N. Romero Road, Tucson, AZ 85705. Certified seed is commercially available through many sources.

For more information on the use of Seco barley, contact your local SCS office. All programs and services of the Soil Conservation Service are offered on a nondiscriminatory basis without regard to race, color, national origin, religion, sex, age, marital status, or handicap.

